



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/063,973

05/30/2002

Robert C.U. Yu

D/A2002Q1

4060

25453 7590 12/09/2003

PATENT DOCUMENTATION CENTER
XEROX CORPORATION
100 CLINTON AVE., SOUTH, XEROX SQUARE, 20TH FLOOR
ROCHESTER, NY 14644

EXAMINER

TRAN, THAO T

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 12/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/063,973

Applicant(s)

YU, ROBERT C.U.

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s), ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1- 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase, "high-temperature-resistant", in claims 1, 3, 10, 15, and 22-24 is a relative phrase which renders the claims indefinite. The term "high" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Specific description of "high-temperature-resistant" is required.

Claims 9, 21, and 26 contain the trademark/trade name Makrolon. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to

identify/describe a polycarbonate or a bisphenol-A polycarbonate used in a coating. However, there are numerous polycarbonate or a bisphenol-A polycarbonate of Makrolon, and accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-20, and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Yu et al. (US Pat. 5,911,934), as evidenced by Rudolph et al. (US Pat. 3,989,655).

Yu '934 teaches a flexible imaging belt seam treatment article and a method of making, the method comprising providing a flexible web substrate and a charge transport layer (see Fig. 1; col. 1, ln. 11-24; col. 8, ln. 12-17).

In regards to claims 1, 5-7, 10, 15, 19, and 22, Yu '934 teaches providing a web substrate comprising a biaxially oriented PET film having a high temperature resistance (coefficient of thermal contraction of about 1.8×10^{-5} °C) (see col. 8, ln. 12-19; col. 10, ln. 29-32); coating the surface of the substrate with a solution containing a thermoplastic polymer component (polycarbonate resin) and a charge transport compound; and drying the coated surface to form a film of the polymer component on the substrate (see col. 11, ln. 24).

In regards to claim 2, Yu '934 teaches the coated flexible substrate being cut into a strip to cover the seam (form a welded seam belt) (see col. 1, ln. 19-23).

In regards to claim 3, Yu '934 teaches the forming of a roll from the dried coated flexible substrate (see col. 11, ln. 34-37).

In regards to claims 4, 18, and 23, Yu '934 teaches the web substrate comprising a conductive layer of titanium (titanium coated biaxially oriented PET) (see col. 10, ln. 29-31).

In regards to claims 8-9, 11, Yu '934 teaches the coating solution further comprising a polycarbonate of Makrolon resin and N, N'-diphenyl-NvN'-bist(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine as the charge transport compound in an organic solvent (methylene chloride) (see col. 11, ln. 13-29).

In regards to claims 5-6, 16-17, and 24, although Yu '934 does not specifically teach the substrate comprising a high glass transition temperature polymer film, since the reference teaches the substrate with the same polymer film (biaxially oriented PET film) as that in the presently claimed invention, the reference's polymer film would inherently have a high glass transition temperature.

In regards to claim 12, although Yu '934 does not specifically teach the thermoplastic polymer to be granular or powdered, the reference teaches the use of Makrolon polycarbonate, which has been known to be in pellet or powder form, as evidenced by Rudolph.

In regards to claims 13-14, Yu '934 teaches that the deposited coating is dried by air or oven drying (see col. 7, ln. 50-53).

Art Unit: 1711

5. Claims 1-4, 7-15, 18-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Yu et al. (US Pat. 6,117,603), as evidenced by Rudolph.

Yu '603 teaches a flexible imaging belt seam treatment article and a method of making, the method comprising providing a flexible web substrate and a charge transport layer (see col. 1, ln. 33-35; col. 5, ln. 29-33).

In regards to claims 1, 4, 7-8, 10-11, 13-15, 18-19, and 22-23, Yu '603 teaches providing a web substrate comprising a metallic substrate (see col. 6, ln. 64 bridging col. 7, ln. 4); coating the surface of the substrate with a charge transport layer by applying a solution containing a thermoplastic polymer component (polycarbonate resin) and a charge transport compound in an organic solvent (methylene chloride); and drying the coated surface by air or baking (oven) to form a film of the polymer component on the substrate (see col. 10, ln. 8-40; col. 11, ln. 5-12).

Furthermore, with respect to claims 1, 3, 10, 15, 22, and 23, although Yu '603 does not teach the substrate to high temperature resistant, since the reference teaches the same substrate (metallic material), the properties of the substrate, such as temperature resistance, would inherently be the same as the presently claimed invention.

In regards to claim 2, Yu '603 teaches the coated flexible substrate being cut into a strip to cover the seam (form a seamed belt) (see col. 6, ln. 19).

In regards to claim 3, Yu '603 teaches the forming of a roll from the coated flexible substrate (see col. 5, ln. 12-16).

In regards to claims 9, 20-21, and 25-26, Yu '603 teaches the coating solution further comprising a bisphenol-A polycarbonate of Makrolon resin and N, N'-diphenyl-NvN'-bist3-

Art Unit: 1711

methylphenyll-1 ,1 '-biphenyl-4,4'-diamine as the charge transport compound in an organic solvent (methylene chloride) (see col. 10, ln. 39-40; col. 17, ln. 38-45).

In regards to claim 12, although Yu '934 does not specifically teach the thermoplastic polymer to be granular or powdered, the reference teaches the use of Makrolon polycarbonate, which has been known to be in pellet or powder form, as evidenced by Rudolph.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 703-306-5698. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Thao Tran

tt

November 19, 2003